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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,468	11/07/2006	Hartmut Stenzel	2037.4	7417
7590 07/14/2008				
Hammer & Hanf Suite G 3125 Springbank Lane Charlotte, NC 28226			EXAMINER VO, HAI	
			ART UNIT 1794	PAPER NUMBER
			MAIL DATE 07/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/560,468

Applicant(s)

STENZEL ET AL.

Examiner

Hai Vo

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5-10 and 12-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 3, 5-10 and 12-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Art Unit: 1794

1. The art rejections based on Tabaksblat et al (US 6,051,618) are maintained.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5, 9, 10, 12-14, 16 and 17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tabaksblat et al (US 6,051,618). Tabaksblat teaches a particulate carrier comprising a plurality of porous polyolefin particles (column 4, lines 60-65). The porous polyolefin particles have a particle size of 2 to 3 mm, porosity of 0.99 cm³/g and a pore size between 0.6 to 2.2 microns (example 1). The gel particles are separated from the multiphase system (column 6, lines 13-15). Likewise, it is clearly apparent that the separated gel particles contains little or no water. A portion of the cyclohexane was evaporated when the mixture was stirred (example 1). The separated particles were dried in a vacuum stove for solvent removal, thereby obtaining the porosity of the polyolefin particles

- (example 1). This at least implies that the separated polyolefin particles in the final stage contain cyclohexane in an amount much less than an original amount of 330 g to give the porosity of 0.99 cm³/g. Accordingly, the porous polyolefin particles comprise the surfactant in an amount of at least 0.17 wt% = $(0.63/(45+.38+330+0.63) \times 100\%)$. This is within the claimed range. The surfactant includes fatty polyglycol ethers, fatty alcohol sulfonates, alkyl ammonium compounds. Since the surfactant is mixed with a polyolefin solution, the polyolefin particle would be hydrophilized over essentially its entire surface wherein the entire surface comprises the outer surface and the surface of its pores. It appears that Tabaksblat meets all the structural limitations as required by the claims; a carrier comprising a plurality of particles, the particles made of a porous hydrophobic polymer substrate wherein the particles have a mean particle size, a pore size and porosity within the claimed ranges. The porous polymer particles are from polypropylene. Therefore, it is the examiner's position that the loadability with water would be inherently present as the same material has like property. It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Accordingly, Tabaksblat anticipates or strongly suggest the claimed subject matter.
5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tabaksblat et al (US 6,051,618). Tabaksblat does not disclose the porous

polyolefin particles having a pore size ranging from 5 to 100 microns. However, Tabaksblat teaches that the pore size can be regulated by his process (column 1, lines 60-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the porous polyolefin particles having a pore size instantly claimed as dependent upon the end use of the products. This is in line with *In re Aller*, 105 USPQ 233 which holds discovering the optimum or workable ranges involves only routine skill in the art.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabaksblat et al (US 6,051,618) as applied to claims 1 above, further in view of Cohen et al (US 4,229,547). Tabaksblat does not specifically disclose the non-ionic surfactant comprising fatty acid glycerides and having an HBL value of 10 to 15. Cohen, however, teaches the use of the non-ionic surfactant including fatty acid glycerides and having an HBL value of 10 to 17 to impart high porosity to substantially uniform spherical particles of polymer. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the non-ionic surfactant including fatty acid glycerides and having an HBL value of 10 to 17 motivated by the desire to impart high porosity to substantially uniform spherical particles of polymer.

Response to Arguments

7. The art rejections based on Tabaksblat have been maintained for the following reasons. Applicants contend that the calculation of the surfactant concentration made by the examiner is in error. The declaration of Dr. Quan Huang has been

thoroughly reviewed and considered. However, the calculation of the surfactant shown in the declaration is not technically accurate. Turning to the Tabaksblat reference, the gel particles are separated from the multiphase system (column 6, lines 13-15). Likewise, it is clearly apparent that the separated gel particles contains little or no water. A portion of the cyclohexane was evaporated when the mixture was stirred (example 1). The separated particles were then dried in a vacuum stove for solvent removal, thereby obtaining the porosity of the polyolefin particles (example 1). This at least implies that the separated polyolefin particles in the final stage contain cyclohexane in an amount much less than an original amount of 330 g to give the porosity of 0.99 cm³/g. Accordingly, the porous polyolefin particles comprise the surfactant in an amount of at least 0.17 wt% = $(0.63/(45+.38+330+0.63) \times 100\%)$. This is within the claimed range. The art rejections are thus sustained.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hai Vo/
Primary Examiner, Art Unit 1794